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The Surgeon-General's Library
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BY
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PRESENTED AT
THE NINETEENTH ANNUAL MEETING
OF THE MEDICAL LIBRARY ASSOCIATION
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THE SURGEON-GENERAL'S LIBRARY.

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It was said some thousands of years ago that "of making many books there is no end," and if true at that early stage in the history of civilization, how much more so now, with the present perfection and diffusion of the printer's art and the wonderful extension of transportation facilities in recent times, which has assisted nature to "make the whole world kin." The effect of the appreciation of this truism on the average individual is one of discouragement. It is hard to avoid a feeling of helplessness when, in the study of any branch of human knowledge, one is confronted by the almost infinite number of books and articles that have been written, at least on all subjects of any considerable importance.

How is one to find out, in the first place, what has been published about the matter in which he is interested? And again, if he is so fortunate as to discover an answer to this problem, how is he to select out of the literary treasures offered those specimens that will best subserve the ends he has in view in his particular investigation. To indicate a still more elementary problem, how is he ever to gain access to, or compass the use of, the literature which he wishes to consult?

The only satisfactory answer to the last query is to be found in the establishment in places of central situation and easy accessibility of the large collections of books and journals and reprints of journal articles which we know as libraries. This need has been felt, and the attempt made to fill it, since the earliest days of civilization. We have it on the authority of Strabo that Aristotle was the first individual to collect a medical library. We have not of course the time to go into the subject, even briefly, of the history of medical libraries; still less so into that of the large general libraries of the world.

As to the latter, it will suffice for our present purpose to mention the great Alexandrian libraries which were organized and built up under the Ptolemies in Egypt. These contained several hundred thousand rolls. Augustus Cæsar followed suit in Rome, and he and his successors had by the fourth century A. D. established a score or

more of public libraries in the Roman capital. Large accumulations were also made in Constantinople. Many of these libraries were later destroyed by fire, others by the invading barbarians from the North. The libraries of the Middle Ages were at first mainly of monastic origin, e. g., those at Tours and the Vatican at Rome, and those of the English Cathedral towns. In some of these the books were chained to shelves in the walls. Later, the rise and development of the great mediæval universities gave a natural impetus to the growth and extension of libraries. We should not forget, in this connection, that the Arabians built up large libraries in Bagdad, Cairo and elsewhere. The first *modern* public library, according to the Encyclopædia Britannica, was founded at Venice in 1436.

The invention of printing in the middle of the fifteenth century naturally furnished the means for a great and rapid extension of the art of bookmaking, and the assembling of these books into large collections followed as a matter of course. These have expanded and finally resulted in the last few centuries in the great general libraries of the world, notably the library of the British Museum, containing two million volumes. This big general library, by the way, was originally the collection of a physician (Sir Hans Sloane, 1753). The Bibliothèque Nationale in Paris has, in round numbers, three million volumes; the Imperial Library of Petrograd has over two million; the Royal Library in Berlin has a million and a half volumes; and that in Munich over a million volumes. The latter is noteworthy as having the largest collection of incunabula in the world, namely some thirteen thousand. The Library in Vienna has a million volumes, and so on in all the old world capitals. In America we have the Library of Congress, with over two million volumes; the New York Public Library, containing two million volumes; the Chicago Public Library, with over five hundred thousand volumes; the Boston Public Library, containing over a million volumes, and many others of less extent which we have not time to consider here.

It is about the time of the Renaissance that we first note the beginning of the collection of medical works, as such, into large private libraries and into integral parts of the public libraries and those of the universities. The earliest known medical publications to be printed date from about 1462 to 1470. Those books printed prior to the sixteenth century we technically term incunabula; and of these there are supposed to be still extant about six to eight hundred medical incunabula—Sudhoff says two thousand, but our own expert thinks his estimate excessive—which offer rich material for the bibliophile as well as for the student of medical history. The early

medical libraries gradually expanded, others were added from time to time, and we now have as among the greatest medical libraries of the world, among hundreds of smaller ones:

The Library of the Faculty of Medicine of Paris, 225,000 volumes;

The Imperial Military Academy of Petrograd, 180,000 volumes;

The Royal Academy of Medicine at Brussels, 100,000 volumes;

The Library of the Royal College of Physicians of Edinburgh,
over 100,000 volumes.

The Royal Society of Medicine of London, 80,000 volumes.

The various medical libraries in Berlin aggregate about 225,000 volumes. Besides those named there are other large collections of medical books in London, Paris, Vienna, Dublin, Florence, Stockholm, and other European cities. The Medical College of Bengal, in Calcutta, India, has more than 500,000 volumes.*

Last, but not least, in this great company we are proud to claim for the United States the Library of the Surgeon General's Office, of the United States Army. Indeed, I think we may at present truthfully claim this to be the largest and most important medical library, not only in the United States, but in the world. I think it may prove interesting to give a short account of its origin and history. Like all the great advances and results of human endeavor, it is almost entirely due to the genius and industry of one individual. This man was Dr. John S. Billings, a medical officer of the United States Army, whose career is at once an incentive and a deterrant, a stimulation and a discouragement, to those of us who realize that we cannot attain to more than average productiveness. It shows on the one hand how much can be done, in fact how the almost impossible can be accomplished by unremitting industry and energy in the effective life time of an individual, as exemplified in the production of the Index-Catalogue of this Library; and on the other hand that only once or twice in a generation perhaps do we find a man possessing in himself all those qualities of character which, combined in Billings, made it possible for him to conceive and carry to successful completion his scheme for the building up in Washington of the most complete medical library in the world. This required inventive genius of the first order, accurate and wide medical knowledge, scholarship of a rare kind, great executive ability and infinite patience and tact. It was a Gargantuan task, according to Osler.

*For further information, see the articles by Dr. F. H. Garrison on Medical Journalism and the History of Medical Libraries in Stedman's Reference Handbook of the Medical Sciences (New York, 1915, V, pp. 706-712, 901-910.)

A little familiarity with the results of his efforts makes one appreciate as never before the truth of the epigram "an institution is the lengthened shadow of one man." It also gives the student an ever increasing sense of his own personal indebtedness to the great founder of this one. "Das Beste was er ist verdankt er Andern," as has been aptly quoted by Osler with reference to makers and collectors of books. Those who have visited the library have no doubt noted the fine portrait of Dr. Billings by Miss Beaux, in the southwestern corner of the Library Hall. It shows him in the military uniform of a Lieutenant-Colonel in the Army, and with the gown and hood of his D. C. L. degree from Oxford University, a rather incongruous exhibit it may be considered, but apparently necessary in Dr. Billings' case to show the unusual combination of cultural and of military affiliations. Dr. Fielding H. Garrison, who has written a most interesting biography of Billings, says that even as a medical student in Indiana Billings had dreamed of establishing such a collection and, in his own words, of preparing a "comprehensive catalogue and index which would spare medical teachers and writers the drudgery of consulting ten thousand or more different indexes or of turning over the leaves of as many volumes to find the dozen or so references of which they might be in search."

Billings came to Washington in 1865, after a distinguished career as an Army Surgeon in the Civil War. He began, as a matter of fact, with almost nothing. Up to that time the Surgeon General's Library had consisted of about a thousand volumes, mostly collected by Surgeon General Hammond. In fact, up to the time of Surgeon General Lovell there had been nothing more than a small office collection of text-books. At the close of the military hospitals, after the war, there was a "slush" fund of about \$80,000 remaining, which Billings—one can easily imagine with how much difficulty—succeeded in having turned over to him for the real beginning of the Surgeon General's Library. He was able later to procure suitable appropriations from Congress for the carrying on of the work; judging from our present experience, not one of the least difficult things that he did.

The work of indexing periodicals was begun about 1872. The first volume of the Index-Catalogue appeared in 1880, and a volume has appeared each year since. So that the Catalogue now comprises thirty-seven volumes, including the last volume of the second series, which we have now in press. The index is a combined one, containing both authors and subjects, and arranged alphabetically. It is true that at present the volumes containing the subjects belonging to

the first letters of the alphabet, even of the second series, are a little out of date, owing to the modern rapid advances in the medical sciences, and this is, indeed, the only defect of the system. This requires, for absolute completeness, access to our library cards, which are of course kept absolutely up to date; that is, we are in fact only about a month or so behind the dates of publication of the European journals.

Even the physician at a distance, however, has a remedy at hand for this condition, if he knows of it and wishes to use it, and that is the monthly publication known as the *Index Medicus*. This was also a conception of Billings and was founded by him and kept up with the able collaboration of Dr. Robert Fletcher, for many years the Principal Assistant Librarian. Dr. Fletcher also assisted in the preparation of the *Index-Catalogue*. The *Index Medicus* is now published by the Carnegie Institution of Washington, and ably edited by Dr. Fielding H. Garrison, the present Principal Assistant Librarian. The literature used in the publication is obtained from this library, the classification employed, and the abbreviations of periodicals used are the same; it is in effect a monthly bibliography of the medical literature of the world, and is kept entirely up to date.

The Surgeon General's Library now contains, in round numbers, 225,000 volumes; 340,000 pamphlets and over five thousand portraits, thus comprising a total of considerably over half a million medical publications. We now subscribe for about 1,900 current periodicals, including, so far as we know and are able to keep up with them, all the medical journals published everywhere in the world.

Dr. Billings looked out with extreme care for the quality as well as the quantity of his accessions, so there is no doubt that also in that respect we may truthfully claim this as the best and most important medical library in the world. This fact is I think recognized by medical scholars in Europe as well as in this country. Indeed, it is claimed that we have a better collection here of the French theses than is contained in the Library of the Medical Faculty of Paris. We have about two hundred incunabula, as well as a historical collection of rare books and pamphlets of later date, and the most complete collection of medical periodicals in the world. This is the most important feature of the Surgeon General's Library, for, as you know, the best of our modern medical literature is contained in the files of periodicals.

I do not cite these facts in a spirit of pride or boasting of the accomplishment and possessions of the Army Medical Corps, but that the reader may appreciate the rare and unique opportunities open to

him, indeed, open to all the physicians of this country, for keeping in touch with the modern literature of medicine, a necessity, of course, to the present-day practitioner who attempts to gain and keep in the forefront of the profession.

In his address on medical bibliography, before the Medical and Chirurgical Faculty of Maryland (1883), Dr. Billings shows by statistical comparison that the Surgeon General's Library then contained more medical literature than the Library of the British Museum or the Bibliothèque Nationale of France, although, at that time, the Washington Library was only twenty years old, and never had, in any one year, funds sufficient to purchase more than two-thirds of the current medical literature. This, he goes on to say, "is very largely due to the fact that while the Washington Library is the National collection, it has been kept separate from the general National Library. The result of this has been that the medical profession has taken much more interest in it than they would do if, as is the case with the English and French medical collections, it became merely a section of the National Library. As a matter of fact, comparatively little use is made by medical writers of the collection in the British Museum or the Bibliothèque Nationale. They consult, in preference, the special medical libraries in London and Paris, which are under the direction of medical bibliographers." This is the stand taken by the founder of our national medical library, and we of the Army have adhered to it loyally and consistently, partly, as stated by Billings, to keep in more direct touch with the medical profession, partly, for the reason stated before Congress on January 22, 1915: "As an adjunct to the Medical Corps of the United States Army, the Library is of inestimable value, forming, in connection with the Army Medical Museum, the Army Medical School, and Walter Reed General Hospital, a central medico-military plant, adequate for the needs of a good modern army establishment, not unlike those of Netley in England, Val de Grâce in France, or the Friedrich Wilhelms Institut in Berlin." To these we might add, the Library of the Imperial Military Medical Academy at Petrograd, founded in 1798, which stands next to the Paris and Washington medical libraries in size and importance.

Of the other American medical libraries—and it should be noted that their inception was mainly due to the example and stimulus afforded by Billings' work here—those most worthy of note are the libraries of the New York Academy of Medicine and the College of Physicians of Philadelphia, each with about 95,000 volumes, the Boston Medical Library with 70,000 and the Lane Medical Library in San Francisco (Stanford University) with 40,000, the medical

department of the John Crerar Library, Chicago, with 60,000, and the Medical Society of Kings County, Brooklyn, with 70,000 volumes. These comprise the most noteworthy only. There are at present over a hundred and fifty medical libraries in the United States. Such cities as Denver, Los Angeles, and San Diego have made good beginnings, Denver has just acquired a new library building, and it is easy to predict that every flourishing town in the country at no very distant date will have at least a small working library for the use of its medical practitioners. We feel that some, at least, of this recent increased stimulation and interest is due to the modest efforts of our small American Medical Library Association.

The Surgeon General's Library is now used by investigators, scientists and clinical physicians and surgeons all over the world, principally, of course, owing to transportation problems, by those of our own country. The one thing that has surprised me most, however, since coming to Washington, some three years since, is that these wonderful opportunities are not better appreciated. We send out, of course, many books, but outside of the research and laboratory men, our own Army medical officers, for instance, rarely use the library. It is really astonishing that in this day and time our medical men do not better appreciate their opportunities. Of late years our increase in business has not been in proportion to the increase in number of physicians and medical journals in the United States. This is due to the obvious fact that the country has now many more medical libraries than formerly to supply ordinary needs. But the Index-Catalogue is known and used everywhere. Dr. Osler has told how worn and bethumbed are the copies in European libraries and it is said that the library of the New York Academy of Medicine has to rebind its copies at intervals owing to constant wear. Hence we are not soliciting additional business, as the seed sown has gone forth and is bearing fruit. But it is well for the medical profession to know and to remember that although nominally part of our military establishment, this is, in effect, the nation's medical library, designed to be of help to all the physicians of the United States. To those seeking information on recondite matters or desiring the loan of books not accessible in their home towns, we can only counsel: *carpe diem!*

Keeping up with modern literature is a necessity for the clinician as well as for the pathologist and laboratory workers. Dilettanteism has no place in modern medicine. One is absolutely compelled to unveil the stores of knowledge, if he does so at all, by the only "open sesame" so far discovered, Dr. Osler's master-word "work." When not engaged in clinical labor, one must read and read intelligently

if he is to keep up with the modern profession. The author just quoted, in one of his delightful lectures says "to study the phenomena of disease without books is to sail an uncharted sea," though he somewhat comforts the practical man by continuing "to study books without patients, is not to go to sea at all." Again: "It is astonishing with how little reading a doctor can practice medicine, but it is not astonishing how badly he may do it." He cites an instance of a doctor living within a hour's ride of the Surgeon General's Library bringing him his little daughter, age 12, with unmistakable symptoms of infantile myxoedema, without the least appreciation of her condition. He did not know of modern work on the thyroid—"was a practical man, not a reader," he said. Of course, this is an extreme instance; but one in active practice, especially in the country, as I have mostly been, has similar experiences with medical practitioners quite frequently indeed. Freind, in his *History of Physic*, says "every physician will make, and ought to make observations from his own experiences; but he will be able to make a better judgment and juster observations by comparing what he reads and what he sees together."

I am sorry that space is not available to give an account of some of our most distinguished classics and rare books and portraits. Dr. Garrison's pamphlet on the "Texts illustrating the History of Medicine" in this Library gives something of an idea of the wealth of our material in that regard. It would require a good many articles, of course, to cover the ground even superficially. I shall merely mention a few of the most conspicuous volumes and pamphlets, old and modern, in order to give you an idea of the treasures in the Library. It may serve to stimulate someone's interest in questions of medical history. To see them, the observer will no doubt be surprised, as I was, at the excellence of preservation of some of the specimens, a silent witness of the remarkable work that was accomplished, the great skill and untiring energy that were displayed in those earliest days of "the art preservative of arts."

Naturally, in considering the history of medicine, and the early medical publications, one thinks at once of old Hippocrates, the Father of Medicine. The curious would be interested to observe here the Greek text of the first complete edition of his works by Aldus in 1526, at Venice, a very rare specimen at present. This famous classical scholar and printer, Aldus Manutius, founded the great Aldine press at Venice about 1490. He published many editions of the Greek classics as well as Latin and Italian works. There is also the folio *De Medicina* of Celsus in eight books, printed at Venice by Philippus Pincius in 1497. Celsus flourished in the time

of Augustus Cæsar. Garrison says that he "was inferentially not a physician but a private gentleman of the noble family of the Cornelli who wrote encyclopedic treatises on medicine, agriculture and other subjects for the benefit of the Admirable Crichtons of his own station of life." Celsus was known as the "*Cicero medicorum*" on account of the elegance of his Latin style and his work is the earliest medical document after the works of Hippocrates. Of the many earlier writers whom Celsus mentions, only Hippocrates has survived for us. Max Wellmann infers, from a careful comparison of textual passages, that Celsus is really a compilation from a Greek medical handbook written before 26 A. D.

The *Opera Omnia* of Galen is a big folio, two volumes in one, published in 1490 by Pincius at Venice. This book as it stands is over 400 years old, it may be noted, antedating the discovery of America, yet it is in a wonderful state of preservation, and shows great beauty of typography. Galen was, as we all know, the most celebrated of the Greek physicians after Hippocrates (2nd century, A. D.) and the founder of experimental medicine.

The "*Aggregator de Medicinis Simplicibus*" of Jacobus de Dondis was printed at Basel by Adolf Rusch, the famous "R" printer, about 1470. He was given this name before philologists had discovered his identity on account of a peculiar monogram he inserted here and there in his books. This volume is certainly one of the very earliest known of medical incunabula. As to which one is entitled to the honor of being actually the earliest extant, investigators are still in doubt.

Another of the earliest incunabula, perhaps of about the date 1470, is the "*Tractatus de peste*" of Valescus de Taranta, who was physician to Charles VI of France. It is also of much interest to the sanitarian as one of the first contributions to our knowledge of epidemic diseases. As an illustration of the interest of the mediæval physicians in hygiene, I would mention the "*Regimen Sanitatis*" of the School of Salerno. We see on the first page that this book was printed in 1480, but the place and name of the publisher are not given and not known. It is a string of dietetic and hygienic precepts dedicated in the manuscripts to the King of France, in the printed copies to the King of England. Although the date assigned for its composition is usually given as 1101, Sudhoff thinks it did not exist in manuscript before about 1250. It was a very celebrated work and Baas says that it passed through more than 240 separate editions and was translated into nearly every language, including Irish, Bohemian and Hebrew. Before leaving this part of the subject I should like to mention Thomas Geminus' "*Compendiosa totius Anatomie Delineatio*,"

published in London, 1545. The main point of interest is the plates, which are supposed to have been the earliest copper plates printed in England. They are copied from the woodcuts in the first edition of Vesalius, and give an excellent idea of the knowledge of anatomy possessed by our predecessors of the fifteenth century.

From among our early Americana, I select a few specimens which I am sure will be of interest to you. Most of these have already been mentioned by Osler in some of his interesting addresses. This most accomplished present-day physician has a wonderful faculty for appreciating the best in medical literature as well as in medical practice, indeed being perhaps one of the greatest masters of English style since Stevenson. Worthy of note is Currie's "Historical Account of the Climate and Diseases of the United States of America" (Philadelphia, 1792.) This is of especial interest to the student of the history of American sanitation, being the first comprehensive work on epidemiology published in this country. John Morgan's "Discourse upon the Institution of Medical Schools in America" (1765) is nowadays particularly enlightening and suggestive. Students at our medical colleges should be particularly appreciative of the modest beginnings of medical education in the Western Hemisphere which have finally culminated in their great medical schools. Dr. Oliver Wendell Holmes' famous essay on the contagiouness of puerperal fever is a reprint from the "New England Journal of Medicine and Surgery," of 1843. This was a most remarkable piece of work, coming as it did so many years ahead of our modern laboratory results in bacteriology bearing upon the etiology of infectious diseases. It met with a great storm of opposition from the old "moss backs" in the profession and affords a notable instance of man's natural conservatism and opposition to advance, even in the enlightened profession of medicine. An accomplished critic has said that this essay will endure in fame at least as long as "The Chambered Nautilus" and "The Last Leaf."

Daniel Drake's "Diseases of the Mississippi Valley" (1850) was a notable contribution to medical knowledge. This physician of the middle West was away ahead of his times, especially considering the primitive and unsettled state of the field of his great researches. He has been called "the most unique figure in the history of American medicine," and he is not well enough known to the general profession. The late unexpected outburst of the war in Europe, which has convulsed the world and incidentally affected to a greater or less extent the fortunes of all of us, even the "neutrals," will help one to appreciate John Jones' "Plain, Practical, Concise Remarks on the

Treatment of Wounds and Fractures; designed for the use of young military and naval surgeons in North America" (1776). This was used by our military surgical forbears in the Revolution, and is said to have been the first surgical treatise published in this country.

To go back for an instant to European medical productions, James Parkinson's original pamphlet, the "Essay on Shaking Palsy" (1817), is very rare and of great historical and practical interest. This was the first description of what we now know as paralysis agitans, sometimes called "Parkinson's disease."

These instances of interesting accessions to the Library might be multiplied indefinitely, but time forbids me to go further. I hope that the few examples mentioned will serve to arouse or stimulate the interest of some one in medical history, a study far removed in many cases from actual helpfulness in the diagnosis and treatment of disease, but one the humanizing effect of which may nevertheless be, perhaps in many ways, not less useful than drugs and physical manipulations to patient as well as physician.

To return to the problem with which we started: how are we to know what has been published about a particular medical subject, and how to select from that just what we most need? I think it will be seen that this has been answered in a complete and practical way by Dr. Billings' Index-Catalogue, and by the Index Medicus. About all else necessary is a little diligence on the part of the seeker after truth, that is perhaps a little practice in the use of the indices. The classification used in the Catalogue would be about the only thing to bother the reader, and he will readily learn to use that after a little practice with it. This classification, no doubt, might be improved and modernized if we had the time and talent to do it, but on the whole it seems to answer for practical purposes. It is not possible to give a comprehensive description of a medical classification in a short space, so I will not attempt to do so here. Our own will come to one easily when he has familiarized himself somewhat with its use. The main point, in completing a set of titles on a given subject, is to cover completely all the cross references given at the head of each bibliography in the Catalogue under the separate subject rubrics. The most difficult thing for the beginner is perhaps the abbreviations of titles of medical periodicals, which we find is necessary to decrease the cost of publication and the size of the volumes. To cover this we get out a periodical addition to the "Alphabetical List of Abbreviations of titles," published in 1895, which is a great help used in connection with the Index-Catalogue. The forthcoming volumes of the Catalogue will

contain a revision of the entire "Alphabetical Lists" in the second series, bringing the titles down to date.

As a concrete illustration of the use of the Catalogue, suppose we take up some question of medical interest as to which an inquirer is desirous of obtaining information and see how we would look this up here in the Library. The course of procedure would be practically the same whatever the subject. Let us suppose, for the sake of example, that one is interested in the subject of "Tuberculosis in pregnancy." It is easy to imagine that in the course of one's practice he may be confronted with a case in which some definite knowledge of such a combination of events may be of great importance to his patient or himself, or to both. Some delicate woman, perhaps, with a tubercular history past or present, has become pregnant and wishes to have the best obtainable opinion as to the probable effect on her present and future health, the chances for successfully carrying the child to the end of gestation, or perhaps she, or her naturally solicitous relatives, are inclined to favor an operative termination of the pregnancy at an early stage. What advice shall we give? Perhaps the ordinary text-books and familiar desk-companions do not adequately cover the point; there may be no chance for consultation with a colleague specially versed along these lines. Indeed, on consulting our text-books on the practice of medicine on this special point we find only the most casual reference to it. Some of the treatises on obstetrics are more enlightening, but still rather vague in their application to an individual case in hand. Naturally, lacking extensive experience with similar cases, one will have to look further in the literature, and if he had no adequate index or other guide, he would be very much at sea. However, there is the Index-Catalogue: let us see if it offers any help. We will suppose, for example, that we want to make a thorough and complete search of the literature and are not merely looking for the latest and most exhaustive articles.

Let us take down the volume of the first series, XIV of 1893, which contains the letter "T," and turn to the subject "Tuberculosis." One will usually find titles for combinations of two or more diseases arranged toward the end of the subject. So, looking there we easily find the heading "Tuberculosis in Pregnancy," (page 853). We find one item in large type at the head of it, followed by some eight or nine titles in small print. I must digress a moment to explain this. To be brief; in the large print we put the published volumes and reprints of the author or subject, chronologically arranged, and in the small print the journal articles by or about the same, alphabetically arranged. At the end of the large print under author titles is shown

the biographical material concerning the author and the whereabouts of his existing portraits. For example, if one takes volume XII of the second series and turns to the heading "Osler" (page 233 to 239,) he will readily understand what I have just tried to explain. Only published volumes and reprints are given an author title, on account, of course, of the necessary economy of space.

But to return to our mutttons. We find listed in volume XIV, first series, one volume, dated 1857, by one E. Warren, on "Tuberculosis and Pregnancy" and several journal articles (with very suggestive titles in connection with our research) dating between 1883 and 1892 on the same subject. Note, however, that there is a cross reference to "Phthisis and Pregnancy." These cross references, by the way, are one of the most valuable and time-saving features of the Catalogue. Under this heading we find in volume XI, first series (of earlier date, viz. 1890) twelve volumes and more than that number of journal articles bearing on our investigation. One of these dates back to 1840, evidently the date of the beginning of the special literature on the subject. Turn next to volume XVIII of the *second series* (published in 1913,) which includes "Tuberculosis," and on page 949 we readily find the heading "Tuberculosis in pregnancy and puerperium." Here there are listed forty volumes and some one hundred and forty journal articles. Note how apt are some of the titles to the work you have in hand. Does one wish the very latest information? If he has access to the library, he consults our card index (which is alphabetically arranged by subjects in drawers according to the classification in the Catalogue) and finds there twenty-three cards bearing on the subject of his inquiry, which include all the articles that have come out since the publication of the last volume of the Catalogue containing the heading in question. If one is at a distance from the library, or unable to visit it, he naturally turns to the last bound volume (1915) of the Index Medicus and consults the general index. There is no reference to our subject there. In the 1914 volume, however, we find on page 207 of the Index of Subjects "Tuberculosis in pregnancy and puerperium" with eight references. This exhausts the subject with the exception of the current numbers of the Index Medicus for the year 1916. In this particular case, the simplest plan is to look up the sub-head "Pregnancy and complications," under the heading "Obstetrics," the pagination being found in the table of contents at the front of each monthly number. This is readily done in a few moments, and we find one article bearing on our research in the February number and one each in the March and April numbers.

This practically covers entirely the literature of our subject up to about a month or two ago.

With comparatively little trouble and with the expenditure of a few minutes time we have limited our search through the world's medical literature to a couple of hundred titles which we can look over and investigate at our leisure. Any of these references can be got out for the inquirer in a few moments by some of our staff here, or mailed or expressed to him if he does not live in Washington.

I had no special reason for selecting the subject "Tuberculosis" except, as stated below, that it is one of the largest and that we covered it in one of the last volumes of the second series of the Catalogue that has issued from the press. Any other subject of medical interest could be looked up in the same way. Some with a little more, most with much less, trouble to the reader, but with the final result, in any case, of putting the investigator in touch with practically all of value that has been written in connection with the subject of his inquiry.

The Catalogue is really wonderfully complete. For example, take the subject "Syphilis." This comprises 109 pages in the first series, chronologically coming up to the year 1891, and 199 pages in the second series, up to June, 1912. The subject "Tuberculosis" is still more enlightening as to the comprehensiveness of the Catalogue. The first series (to 1891) has 47 pages, the second series (to July, 1913) has 413 pages. This last will give one a concrete idea as to the enormous development of medical science and increase of medical literature within the past twenty years.

I hope that no one will get the idea from what I have said that we claim that our Index-Catalogue and the Index Medicus are the only sources from which one may gain information as to medical bibliography. There are, for instance, in English, the "Current Medical Literature" section of the "Journal of the American Medical Association," and its new quarterly index; the "International Abstract of Surgery;" "Progressive Medicine;" the "Tropical Diseases Bulletin," and others. There are also the various German *Jahresberichte* and *Centralblätter*. Those I have mentioned give abstracts of the most important articles. Some of the English annuals, and notably the German *Ergebnisse* and *Jahresberichte*, give extensive bibliographies.

It should be within the power of any small medical society to establish a working library which may contain all of the most important reference books and perhaps a good many of the journals. It is rather beyond the means of most individual physicians to accumu-

late a sufficiently large collection to keep them *au courant* of modern developments in medicine. If one has access, however, to the reference books and bibliographies, he can borrow such references as he wishes to consult from this or some other large medical library. Our own facilities are entirely open and accessible, and as a matter of course, to any physician who will visit the library at any time from 9.00 a. m. to 4.30 p. m., except Sundays and holidays, and also by special arrangement at other times. It is intended to apply to the next Congress for appropriations sufficient to insure the opening of the Library on evenings, Sundays and holidays, as is now the custom at the Library of Congress. This will greatly extend the usefulness and availability of the Library, especially to our confrères in Washington and Baltimore and the surrounding country. The physician living at a distance can borrow such works as he wishes to consult (except our very rarest specimens and unbound current journals) by sending an identifiable request for them and by paying the postage or expressage each way. These he is allowed to keep for two weeks, or for longer periods on proper request for extension, if there has been no other application for the books. If an individual is unknown at the library a small deposit is required to cover possible loss, otherwise, and from old "customers," no deposit is required. Every facility is given to visitors at the Library to consult the card catalogue, and copies of the cards can be obtained by the distant worker on the payment of a nominal fee for the labor of copying them outside of office hours. We endeavor to make these transactions as informal and simple as possible as we are anxious that physicians everywhere should learn the advantage that the Library offers and make use of our rich collections to the fullest extent. Otherwise what we consider the main function of the establishment is in abeyance and lost opportunities for professional helpfulness to mankind, which might easily be so many, are gone never to return.

Library in the Surgeon General's Office.

EXTRACTS FROM DEBATE
IN THE
CONGRESSIONAL RECORD,

January 22, 1915.

Mr. HAY. Mr. Chairman, I want to ask unanimous consent to return to the item on page 44, relating to the library in the Surgeon General's office, for the purpose of permitting the gentleman from Missouri [Mr. LLOYD] to ask unanimous consent to extend his remarks.

The CHAIRMAN. The gentleman from Virginia [Mr. HAY] asks unanimous consent to return to the item on page 44, under the Army Medical Museum Library, for the purpose indicated. Is there objection?

Mr. MANN. Reserving the right to object, what is his purpose? I did not hear the gentleman.

Mr. HAY. In order to permit the gentleman from Missouri [Mr. LLOYD] to extend his remarks in the Record.

The CHAIRMAN. Is there objection?

There was no objection.

Mr. LLOYD. I wish to extend my remarks on this particular subject. I was attacked during the last campaign for having voted for the merger of this library with the Congressional Library, and I wish to say something about this particular library and why it should be continued, and give something of its history.

The CHAIRMAN. Is there objection to the gentleman's request to extend his remarks?

There was no objection.

Mr. LLOYD. Mr. Chairman, in the Army appropriation bill for the present fiscal year as passed by the House of Representatives \$10,000 was appropriated for the library of the Surgeon General's office, including the purchase of necessary books of reference and periodicals. Such a provision has been regularly included in the appropriation acts for many years past, but in that bill, as it was reported from the Committee on Military Affairs in the Senate, the same item appeared with the following additions:

Provided, That on or before January 1, 1915, said library shall be transferred to and become a part of the Library of Congress, and so much of the amount herein appropriated as may be necessary is made available for paying the expenses of such removal.

You will observe that this provision would have merged the Surgeon General's library with the Library of Congress. After the adoption by the Senate of the amendment I received a letter from the chairman of the Medical Association of the City of St. Louis protesting against the adoption of the amendment. I made some inquiry about the provision and wrote, in reply to the letter, some of the arguments which I had heard in favor of the merger of these two libraries, and expressed myself rather strongly in praise of the Library of Congress, and said, in effect, that I did not know why the Library of Congress might not include a medical library, a law library, and in fact any kind of library that was useful to the public.

After this letter was written the military appropriation bill, as amended by the Senate, came to the House, and on motion of the chairman of the Military Committee of the House all the amendments of the Senate were disagreed to and a conference was asked with the Senate. I voted for that motion; in fact, there was no opposing vote to the motion. When the bill came back with an

agreement of the conference committee between the two Houses, the amendment referred to was eliminated. I voted for the conference report with this provision eliminated. So that, in fact, I cast two votes in opposition to the merger of these two libraries, although there was no direct vote in either case on that particular amendment.

Within a few weeks of the passage of the bill, with the Senate amendment eliminated, the Medical Association of Missouri passed resolutions denouncing me for voting against the merger of these two libraries, and the resolution was sent by the secretary of the association to every physician in my district with instructions, in effect, not to support me as the candidate for Congress. Several months after that time the secretary of the medical association of the State was kind enough to publish in the Medical Journal in the State of Missouri, of which he is the editor, a statement to the effect that they were mistaken in charging me with voting for the merger of the two libraries, and apologized to that extent for the course of the medical association.

I wish to say now that on account of the attack that was made upon me I made investigation, as I had never done before, of the necessity for the Surgeon General's library and the desirability of the merger, and am fully convinced that the merger was not desirable and that both libraries have important functions to perform. The Library of Congress is a general library of literary productions and is not devoting itself especially to the development and advancement of any profession, and the Surgeon General's library is performing splendid duty in furnishing information that could not be well secured elsewhere to the medical fraternity in the United States. I quote from the report of the Surgeon General of the United States on the advisability of the merger of the two libraries and concur in his views as expressed in the statement, and take pleasure in commending these views to the consideration of Congress.

There is no reason to believe that the Library of Congress is in a position to take over at short notice such an enormous institution as the library of the Surgeon General's office, and it is very certain that should the actual expenses of transporting the books from the one library to the other be paid for from the \$10,000 allowed for, little or nothing would remain for the purchase of books and periodicals during the fiscal year. The library of the Surgeon General's office has been for years in amicable relations with the Library of Congress, which refers to the former all questions dealing with medical literature. It is well understood that a purely medical library should be strictly delimited from a general library of secular literature, and to distribute the books now in the Surgeon General's library throughout the stacks of the Library of Congress would, if not impossible, be entirely destructive of the usefulness of the medical library. The Library of Congress is increasing along its own lines at the rate of 70,000 to 80,000 volumes a year, and it has distributed throughout its stacks space sufficient to allow for its own healthy growth for some years. It does not, however, have en bloc sufficient space to house the medical library should the proposed amendment of the Senate committee become law. There would still have to be special reading rooms for the users of the medical library and a specially trained force for its cataloging and for the issue of volumes to readers in Washington and throughout the country. The shelving now in the library building at Seventh and B Streets SW. has cost in the neighborhood of \$25,000, and it is doubtful if these stacks could be removed and used in the building of the Library of Congress, as they are entirely different in size, shape, and structural material. A large sum of money would therefore necessarily be expended in making the transfer, and it is believed no gain whatever in economy of administration would result. The time lost to the many institutions and scientists who use the medical library throughout the country by the transfer is also well worth considering. To stop the current work of the Surgeon General's library even for a month would be to inflict a serious injury upon the public, and probably much more time than one month would be required to make the transfer.

The library of the Surgeon General's office, so called because it has been attached to that bureau of the War Department since 1836, is, in effect, the national medical library, consisting of over half a million medical books and pamphlets which are constantly used, not only by the Medical Corps of the United States Army but by the medical profession of the whole country at large. The index catalogue of this library, now numbering 33 volumes in folio, is acknowledged and used all over the world as the standard bibliography of medical literature, consisting of a subject and author index arranged in strictly alphabetical order, thus easily accessible to physicians seeking information on any medical subject whatever.

I think in this connection, as no statement has been given to the public of the history of this library, it would not be out of order to submit as a part of my remarks a brief history of the library and its index catalogue as furnished by the librarian of the Medical Library:

For many years there was a small collection of medical books and journals in the Surgeon General's office at Washington, which collection was commenced by Surg. Gen. Lovell prior to 1836. At the commencement of the Civil War this collection amounted to between three and four hundred volumes. During the administration of Surg. Gen. Hammond—1862-63—359 volumes were added to the collection. During 1864-65 about 1,000 were added, selected mainly by Dr. Woodward and Dr. Otis. In the fall of 1865 the library came under the administration of Dr. John S. Billings, who had just completed a long and honorable period of service as Army surgeon during the Civil War.

Dr. Billings at once recognized the opportunity offered of founding a great national medical library, and the valuable collection we have to-day is the result of his energy, perseverance, and judgment. Aided by liberal appropriations from Congress, the growth of the library under its able and energetic director was phenomenal.

A catalogue of the books in the Army Medical Library was published in 1872, and another in three volumes in 1873-74. In connection with this Dr. Billings had early conceived the idea of indexing the files of periodicals in the library, so that as an addition to the catalogue of authors a subject index of the literature of medicine might also be printed. The work of indexing periodicals was actually begun in 1873, and in 1876 a "Specimen Fasciculus of a Catalogue" of the library, consisting of a combined index of authors and subjects arranged in dictionary order in a single alphabet, was printed and distributed to medical libraries and bibliographers to obtain criticisms and suggestions as to the form of catalogue that would be most acceptable and useful. At this time the library contained about 52,000 books and pamphlets.

Soon after the publication of the "Specimen Fasciculus" Dr. Robert Fletcher was assigned to duty in the library and became the principal assistant in the work of preparing and printing the index catalogue. The first volume of the latter—a large quarto of 888 pages—was printed in 1880, and 15 volumes of similar size followed, making a first series from A to Z of 16 volumes, 1880-1895. Volume I of the second series was printed in 1896, and 17 volumes of this series—1896-1913—have been printed to date, covering the alphabet from A to T, inclusive. After the completion of Volume XVI of the first series Dr. Billings was retired from active service in the Army at his own request, to assume the professorship of hygiene in the University of Pennsylvania, afterwards becoming librarian of the New York Public Library. The administrative successors of Dr. Billings in the Surgeon General's library have been Col. D. L. Huntington, 1896-97; Maj. James C. Merrill, 1898-1902; Maj. Walter Reed, 1902; Col. Walter D. McCaw, 1903-1913. The library is at present under the administration of Lieut. Col. Champe C. McCulloch.

The Index-Catalogue of the Library of the Surgeon General's Office consists, as its title implies, of a full catalogue of the works contained in the library, and, in proper alphabetical sequence, a complete bibliography by subjects of the literature of medicine, carefully indexed, classified, subdivided, and arranged under the subject headings in alphabetical order by authors. Although bibliographies of medical literature had been attempted before by Gesner as early as 1545, and later by Merklin, von Haller, Plouquet, Haeser, Young, Forbes, Atkinson, Callisen, Watts, and others, yet, in the language of Osler, "their efforts are Lilliputian beside the Gargantuan undertakings of the Surgeon General's Office," which he describes further as "one of the most stupendous bibliographical works ever undertaken." By reason of the completeness of its bibliographies, especially in the matter of periodical literature, and its exhaustive cross-reference, the catalogue is practically a working guide and index to the medical libraries of other cities and countries, and it is stated on good authority that well-thumbed and well-worn copies in foreign universities and libraries attest its constant use.

The edition of the Index-Catalogue is limited to 1,500 copies, which are distributed with care and discrimination among the great medical and general libraries of the United States and Europe and among individual workers in scientific medicine. The cordial recognition and appreciation of the work of the catalogue by medical men is evidenced by their constant use of the library and by the great increase in the number of large medical libraries in the country, many of which, like those of Boston, Philadelphia, and Baltimore, have adopted the methods of the National Medical Library. Tokens such as these go far toward verifying the prediction made by Dr. Billings 30 years ago that "if a sufficient number of the catalogue be printed and distributed to our medical writers and teachers, so that they may at their leisure learn what aid they can obtain in their researches, no collection of the Government will be more used or be of more practical utility; that it will soon tend to elevate the standard of medical education, literature, and scholarship of the Nation, and will thus indirectly be for the benefit of the whole country, since the general knowledge and skill of the medical profession becomes a matter of personal interest to almost every individual at some time during the course of his life." It will be seen, therefore, that the gratitude of the entire medical profession, if not the public, is due to the liberal and broad-minded spirit displayed by Congress in furthering and supporting this important work, which is one of the well-recognized landmarks in the history of modern medicine, and, if we may again cite Osler, "will ever remain a monument to the Army Medical Department."

There are many Members of Congress, I have no doubt, whose attention has never been called to this library and do not know even where it is located.

The books in this library are stored in the Army Medical Museum at Seventh and B Streets SW. in this city. One-half of this splendid building contains the Medical Museum proper—one of the finest collections of its kind in existence—and the other one-half is used for the purpose of the library.

It is claimed by those familiar with this library that it is necessary for the Medical Corps of the United States Army, and through it valuable information is given to the medical fraternity as well. The librarian of this library, in another statement, commends the library in these words:

As an adjunct to the Medical Corps of the United States Army, the library is of inestimable value, forming, in connection with the Medical Museum, the Army Medical School, and the Walter Reed General Hospital, a central medico-military plant adequate for the needs of a good modern army establishment not unlike those of Netley, in England, Val de Grace, in France, or the Friedrich-Wilhelms Institute, in Berlin. The latter is the only other military establishment which has a library of anything like the value of the library of the Surgeon General's Office.

It is submitted that to make any change in the present title and administration of this library would have the effect of destroying its usefulness. Moreover, such a library ought, in any case, to be under the direction of some highly educated physician, and to dissociate it from the Army medical establishment would be to deprive that branch of the service of one of its best working tools. The examinations for admission to the

Medical Corps of the United States Army are so rigorous as to make a definite selection of physicians of much higher grade than the average, and the history of modern medicine shows conclusively that some of the greatest recent advances in tropical medicine and in the prevention of infectious and parasitic diseases have been due to the work and cooperation of Army surgeons. To date the Nation's medical library has thrived and prospered very well under the Army administration, to the satisfaction of the entire medical profession, and it is difficult to see what advantages would be derived from pitchforking it into a general collection of secular literature such as that of the Library of Congress.

This library at the present time contains 189,171 bound volumes and 325,639 pamphlets. The United States Government pays annually for the salaries of the persons in charge of the library \$37,730, and has 44 persons employed.

My candid judgment is that any reasonable amount of money spent in maintaining this library and adding to it from time to time is money well expended. I therefore take pleasure in supporting the provision in this bill appropriating \$10,000 for the purchase of new books and periodicals.

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